



A REPORT
TO THE
MONTANA
LEGISLATURE

PERFORMANCE AUDIT

Montana's 9-1-1 Emergency Telephone System

Department of Administration

NOVEMBER 2007

LEGISLATIVE AUDIT
DIVISION

07P-12

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November 2007

The Legislative Audit Committee
of the Montana State Legislature:

This is our performance audit of the Montana 9-1-1 Program. Findings and recommendations address a range of issues relating to program administration and enhancing the 9-1-1 system by clarifying the role of the Department of Administration in establishing a uniform statewide system.

We wish to express our appreciation to the staff of the Department of Administration and local government officials for their cooperation and assistance during the audit.

Respectfully submitted,

/s/ Scott A. Seacat

Scott A. Seacat
Legislative Auditor

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9-1-1 Advisory Council

Fred Leistiko, Chairman

REPORT SUMMARY

Examination of Montana's 9-1-1 Emergency Telephone System

9-1-1 is the universal number in the U.S. providing access to emergency services. The 1985 Legislature delegated to the Department of Administration (department) responsibility for oversight and monitoring of a state system. This report discusses changes the department and legislature can make to improve and enhance 9-1-1 services for today and tomorrow.

Audit Findings

Public safety answering points (PSAPs) are generally responsible for answering 9-1-1 calls and dispatching emergency services. Montana has 57 PSAPs operated by county or city governments. To help local governments implement, operate, and maintain 9-1-1 services, the legislature levied surcharges on each telephone access line. As of November 2007, the 9-1-1 surcharges are \$1.00 per access line per month. We conclude the department has met its statutory obligations for assisting PSAPs, distributing program funds to counties, and monitoring system development.

In addition to looking at department oversight and monitoring activities, audit objectives addressed uses of surcharge revenues and department authority for ensuring 9-1-1 services are deployed efficiently and effectively. We believe the department and legislature should re-examine the 9-1-1 system in light of technological changes and system status. The following findings illustrate why we believe the program needs modification.

- ♦ Statute does not give the department clear authority to set standards and direct program activities to ensure standardization and minimum statewide services in a rapidly evolving 9-1-1 system.
- ♦ Some PSAPs have accumulated relatively large reserves from surcharge revenues; however, statute is unclear on how PSAPs may use these program funds.
- ♦ A mathematical oversight in state law results in inequities in the distribution of program funds to PSAPs.
- ♦ Some counties have expended program funds for administrative or indirect costs before deploying current 9-1-1 technologies.
- ♦ The department has minimal management information for program oversight and reporting purposes.
- ♦ Department documentation suggests some PSAPs have insufficient call volumes to justify being stand-alone PSAPs, and consolidation would increase efficiencies without jeopardizing 9-1-1 service.

Audit Recommendations

Audit recommendations in Chapter III are directed to the department and address seeking statutory change to the funding distribution methodology, and improving the department's collection and compilation of management information. Chapter IV presents

recommendations directly to the legislature regarding clarifying use of program funds, 9-1-1 services provided in the state, and increasing department authority to oversee and direct statewide 9-1-1 activities. We also recommend the legislature revise how unused 9-1-1 funds deposited in the General Fund are expended.

Chapter I — Introduction

Introduction

The 1985 Legislature created an emergency telephone system that uses the universal three-digit number 9-1-1 to access emergency services. This three-digit telephone number provides individuals facing an emergency situation with direct access to a public safety answering point (PSAP), which may either dispatch emergency services immediately or relay the emergency information to an appropriate dispatch service. 9-1-1 is the standard by which the public expects it can request emergency services at any time from virtually any location.

Recognizing the importance of a 9-1-1 emergency telephone system, the Legislature delegated to the Department of Administration (department) responsibility for oversight of the creation and operation of the system. Additionally, the Legislature levied a surcharge fee on all telephone lines to fund the implementation, operation, and maintenance of the system. The 9-1-1 Program within the Public Safety Services Bureau is responsible for oversight of 9-1-1 activities. The Legislative Audit Committee requested a performance audit of these 9-1-1 activities. This report provides information resulting from our program examination.

Audit Objectives

We developed five objectives for examining the state emergency telephone system.

- ♦ Is the department meeting its statutory mandates to provide technical assistance and monitor local area plans for deploying emergency 9-1-1 services?
- ♦ Are 9-1-1 surcharge funds spent on equipment, services, etc., which most likely assure current 9-1-1 technologies are deployed by 2011?
- ♦ Does having multiple 9-1-1 service providers influence 9-1-1 emergency services in the state?
- ♦ Could the state increase efficiencies in 9-1-1 services resulting in reducing local government costs for operating 9-1-1 centers?
- ♦ Does the department have authority necessary to ensure 9-1-1 services are deployed efficiently and effectively?

Audit Scope and Methodologies

The 9-1-1 Program operates at the state and local levels. While the department has state oversight and administration responsibilities, local PSAPs are responsible for implementing, operating, maintaining, and improving 9-1-1 operations locally. PSAPs are typically organized under county government structures, but may also be organized under a city government, tribal government, or other political subdivision to provide services to a specified area.

Audit scope was limited to examining department program activities and obtaining general information about PSAP operations. We reviewed local government information about expenditures of program funds, but we did not audit local government expenditures or specific 9-1-1 activities.

Audit Methodologies

To accomplish our audit objectives, we:

- ♦ Reviewed expenditure documentation for all PSAPs.
- ♦ Examined department methodologies for distributing program funds to counties.
- ♦ Interviewed 18 sheriffs and local government officials responsible for local 9-1-1 centers.
- ♦ Interviewed department management and program personnel.
- ♦ Interviewed five 9-1-1 Advisory Council members.
- ♦ Interviewed seven county commissioners about 9-1-1 activities.
- ♦ Interviewed telecommunications industry personnel about providing 9-1-1 services in Montana.
- ♦ Obtained information about 9-1-1 services and programs in other states.

Related Performance Audits

The Legislative Audit Division is conducting two other performance audits related to emergency services and communications.

- ♦ **07P-011 – Emergency Medical Services (EMS) System.** This performance audit is examining provision of emergency medical services in the state. The Department of Public Health and Human Services is responsible for oversight of the EMS system. Audit objectives include examining the components of Montana’s EMS system; examining the efficiency, effectiveness, and economy of EMS services; examining the statewide level of EMS incidents and distribution of EMS services; determining whether EMS regulations are properly managed and enforced.
- ♦ **08P-003 – Interoperability Montana (IM).** According to the U.S. Department of Homeland Security communications interoperability refers to “the ability of emergency responders to work seamlessly with other systems or products without any special effort.” The Department of Administration has oversight responsibilities for IM. Wireless communications interoperability specifically refers to the ability of emergency response officials to share information via voice and data signals on demand, in real time, when needed, and as authorized. This performance audit will generally examine Montana’s efforts to create a comprehensive public safety communication system through the Interoperability Montana program.

Report Organization

The remainder of this report is organized into three chapters. Chapter II provides background information about the 9-1-1 Program. Chapter III provides information and recommendations regarding the department's oversight of 9-1-1 activities. Chapter IV presents recommendations to the Legislature for enhancing Montana's 9-1-1 emergency telephone system.

Chapter II — Background

Introduction

This chapter provides information about the state emergency telephone system, Department of Administration (department) oversight activities, and an overview of local government operations.

State Law Governs 9-1-1 Program Activities and Services

Title 10, Chapter 4, MCA, delegates to the department responsibility for assisting in development of 9-1-1 systems. Those responsibilities include assisting public safety answering points, or PSAPs. Statute also mandates the department approve and monitor PSAP plans to implement, maintain, and improve local 9-1-1 operations and PSAP use of program funds.

9-1-1 Stakeholders Provide Input Through an Advisory Council

Section 10-4-102, MCA, requires the department create an advisory council to obtain input from 9-1-1 system stakeholders. The advisory council consists of 10 persons representing local governments, emergency responders, disaster and emergency services agencies, and PSAPs. The advisory council meets approximately four times a year and provides input and recommendations to the department on such topics as allowable uses of program funds and proposals for changes to state laws governing 9-1-1 services.

PSAPs Provide 9-1-1 Services

As of August 2007, there were 57 PSAPs in the state. A PSAP is staffed 24 hours a day, seven days a week, by dispatch personnel. PSAP work station equipment includes dedicated telephone lines, computers or console units for managing 9-1-1 calls, and radio and paging systems for contacting emergency responders. Most PSAPs have at least two dispatcher positions or stations, usually with at least one position used as a backup or supplemental position. Additionally, PSAPs have backup plans in the event of 9-1-1 system failure due to man-made or natural events. Backup systems may be a secondary PSAP unit, although many PSAPs have mutual aid agreements with adjacent counties to provide services in the event a PSAP is unable to perform its functions.

Typically, there is a PSAP located in each county. However, there are several counties that have two or three PSAPs providing 9-1-1 and dispatch services in the respective county and community jurisdictions. Conversely, there are several PSAPs serving between two and four counties. Additionally, several tribal governments operate PSAPs separate from county PSAPs. As much of Montana is rural, the majority of PSAPs serve counties with less than one percent of the state's population. Just less than half the PSAPs serve counties with populations larger than one percent of the population, including the state's largest communities.

While county sheriffs administer most PSAPs, they are not exclusively a county or law enforcement operation. For example, city and county law enforcement officials in one county delegated PSAP operations to the city police department. The PSAP in one major Montana city is organized as part of the city's fire department.

9-1-1 Services vs. Dispatch Services

9-1-1 services typically refer to services directly related to an incoming 9-1-1 call, including dispatch of emergency responders. However, dispatchers typically provide many other services indirectly related to 9-1-1 services, such as answering non-emergency telephone lines, monitoring alarm systems, checking drivers' license and vehicle registration information for law enforcement officers, and performing administrative tasks.

Telephone Surcharge is the Primary Funding Source

PSAPs fund operations with a combination of local, state, and federal dollars. The primary state funding source comes from a 9-1-1 surcharge collected from telephone subscribers. Until June 2007, telephone subscribers paid \$0.50 per telephone access line. State law required \$0.25 of the fee be distributed on a per capita basis. The remaining \$0.25 was allocated using a different formula. State law in effect from 1997 through July 2007 required 84 percent of revenues be allocated to counties on a per capita basis and 16 percent of revenues be evenly distributed among counties with populations of one percent or less of the state's population. The 84-16 formula sunset July 1, 2007. Table 1 provides information on past surcharge revenues collected for fiscal years 2002-2006.

Table 1
Summary of 9-1-1 Surcharge Revenues

FY02	\$4,947,640
FY03	\$5,344,008
FY04	\$5,422,333
FY05	\$5,711,593
FY06	\$6,074,507

Source: Compiled by the Legislative Audit Division from department records.

2007 Legislature Increased the Telephone Surcharge

The 2007 Legislature increased the surcharge by \$0.50 per access line for a total of \$1.00 per access line to fund deployment of wireless 9-1-1 services. Total revenues for wireline and wireless 9-1-1 services are expected to be approximately \$12-\$16 million annually, depending on the number of wireline and wireless telephones. Of the additional \$0.50 levied in 2007, \$0.25 is allocated to PSAPs and \$0.25 dedicated to assisting wireless telephone providers recover costs associated with installing equipment necessary for implementing what is termed "enhanced" wireless services. The differences in 9-1-1 services are discussed on pages 8-10.

2007 Legislature Considered Other Changes to 9-1-1 Program Funding

The 2007 Legislature considered several bills that would have affected 9-1-1 Program funding. House Bill (HB) 14 would have appropriated \$4 million of General Fund monies for enhanced 9-1-1 service development and deployments, but it did not pass out of committee. HB 33 would have extended the sunset provision of the 84-16 percent allocation methodology until 2011. HB 33 passed out of the House Federal Relations, Energy, and Telecommunications Committee, but House floor action returned the bill to the House Appropriations Committee, where it was subsequently tabled.

Federal and Private Grants Obtained to Assist with Implementation

The department also received federal funding for 9-1-1 services. In FY2003 the department received approximately \$1.8 million and in FY2006 the department received \$1 million for wireline 9-1-1 deployments and wireless 9-1-1 readiness. In addition, in 2003 the Montana Sheriffs and Peace Officers Association gave the department a grant of \$1.9 million to assist with system development. Other private grants totaling about \$384,000 have also been used to assist with statewide development of 9-1-1 services.

Statute Specifies How Surcharge Revenues are Allocated

Sections 10-4-302 and 311, MCA, specify how surcharge revenues will be distributed among counties. Each county is guaranteed a minimum of one percent of total revenues. The remaining funds are allocated on a per capita basis. If there are two or more PSAPs in a county, program funds are allocated among PSAPs on a per capita basis. Program funds are distributed to PSAPs quarterly. In 2006, program records indicated 51 counties received between approximately \$70,000 and \$151,000 and 6 counties received between approximately \$234,000 and \$544,000.

Surcharge Revenues Also Fund Program, FTE and Other Costs

The department's program costs are funded from surcharge revenues. Section 10-4-301, MCA, requires 3.74 percent of surcharge revenues be deposited into the state's General Fund to pay for administration costs. Until 2007, the program had two FTE: a program officer and an assistant program officer. The 2007 Legislature authorized the program an additional FTE to help manage work related to cost recovery administration for wireless telephone providers. Program administrative costs were less than 3.74 percent in past years, but the department has been unable to transfer unused funds into program operations. This issue is discussed in more detail in Chapter IV.

Local Governments Pay a Portion of PSAP Costs

Audit documentation indicates city and county governments typically pay a portion of 9-1-1 costs. These costs can include all or a portion of:

- ♦ Personal services.
- ♦ Facility costs or rent.
- ♦ Administrative costs.
- ♦ Utilities.

Seventeen counties responded to a Montana Association of Counties survey, indicating 9-1-1 program revenues in 2005, on average, funded approximately 17 percent of counties' total costs for dispatch operations. According to the survey, 9-1-1 revenues as a percent of total county funding for dispatch centers ranges from 6 percent to 68 percent. However, based on our observations, dispatch operational costs may include expenses not directly related to providing 9-1-1 emergency services, such as responding to non-emergency calls or providing law enforcement officers with vehicle registration or driver's license information. Local governments must use other revenue sources to pay for remaining 9-1-1 and dispatch services costs. However, the department does not track how local governments fund dispatch operations.

PSAPs providing 9-1-1 services to other counties or cities may assess service charges in addition to receiving a jurisdiction's 9-1-1 allocation. Whether a jurisdiction providing 9-1-1 services assesses additional fees depends on level of service provided, including any additional dispatcher services.

An Overview of Montana's 9-1-1 Call System

How 9-1-1 calls are managed depends on the system used by a PSAP. There are three types of 9-1-1 service:

- ♦ Basic
- ♦ Wireline enhanced
- ♦ Wireless enhanced

The following sections provide an overview of each service.

Basic 9-1-1 Service

Basic 9-1-1 requires a call be routed to a PSAP in the caller's area but does not provide the PSAP with a callback number or location of the caller. Since telephone exchanges do not always correlate directly with 9-1-1 jurisdictional boundaries, a 9-1-1 call can be routed

to a PSAP serving a different jurisdiction. For example, a single telephone exchange may provide telephone service in two or more counties. Since basic 9-1-1 service does not provide address information, the system is unable to ensure a call is directed to the appropriate PSAP.

The 1985 Legislature enacted a \$0.25 fee on each telephone access line to pay for the implementation, operation, and improvement of basic 9-1-1 services. Seventeen PSAPs provide basic 9-1-1 service as of August 2007.

Wireline Enhanced 9-1-1 (E9-1-1) Service

Wireline enhanced 9-1-1 service routes 9-1-1 calls through address and telephone number databases, which provide PSAP personnel with a callback number and address of the wireline telephone used to make the call. Address information enables the 9-1-1 system to ensure a call is routed to the appropriate PSAP. This system allows dispatchers to track hang-up calls and refer emergency services to a location even if a caller is unable to provide location information. For example, if a crime victim calls 9-1-1 but the perpetrator hangs up the phone, a dispatcher can attempt to contact the victim by telephone and send law enforcement to investigate.

Because E9-1-1 service provides the location of a wireline caller, a substantial phase of deployment is developing a comprehensive address database for the entire service area. This requires using geographic information system equipment to mark each location in a PSAP's area and enter the information into a database. In addition to providing address information, mapping software and computer-assisted dispatching systems can use address information to direct emergency responders to locations and track the status of emergency responders. Some systems include pictures associated with addresses to further help emergency personnel find locations.

Wireless (Cell) Phones Can Call 9-1-1 but Response Delay Can Ensur

Wireless (cell) phones can contact a PSAP that provides basic or enhanced 9-1-1 services. However, those calls (at present) are typically routed to a non-emergency administration line at the PSAP and do not provide a callback number or address to dispatch personnel. Additionally, wireless callers do not have assurance their call will go to the appropriate PSAP relative to the caller's location. Locations of towers and signal direction can result in calls being routed to a PSAP outside of a caller's area, resulting in potential confusion and delays in providing emergency services. For example, a wireless 9-1-1 call made in one county may be directed to a PSAP in another county.

The 1997 Legislature enacted a \$0.25 fee on all telephone access lines to pay for the implementation, operation, and improvement of E9-1-1 services in the state. Forty PSAPs provide E9-1-1 service and the department projects the seventeen PSAPs providing basic 9-1-1 service will deploy E9-1-1 by 2011.

Enhanced 9-1-1 Also Offers Other Emergency Services

In addition to the services described above, E9-1-1 service may also offer other emergency services capabilities, including:

- ♦ Internet Protocol (IP) – this capability allows persons using the Internet to call for 9-1-1 service from their computer or telephone systems using IP technology.
- ♦ Reverse Notification – this capability allows emergency services to use wireline telephone services to notify residents in an area of an emergency. For example, emergency personnel can use reverse notification to alert residents in the path of approaching wildfires to prepare for evacuation or to evacuate their homes.

Wireless Enhanced E9-1-1 (WE9-1-1) Service

Wireless enhanced E9-1-1 routes wireless 9-1-1 calls to the appropriate PSAP and provides the telephone callback number and location of the caller. There are two phases for WE9-1-1 service:

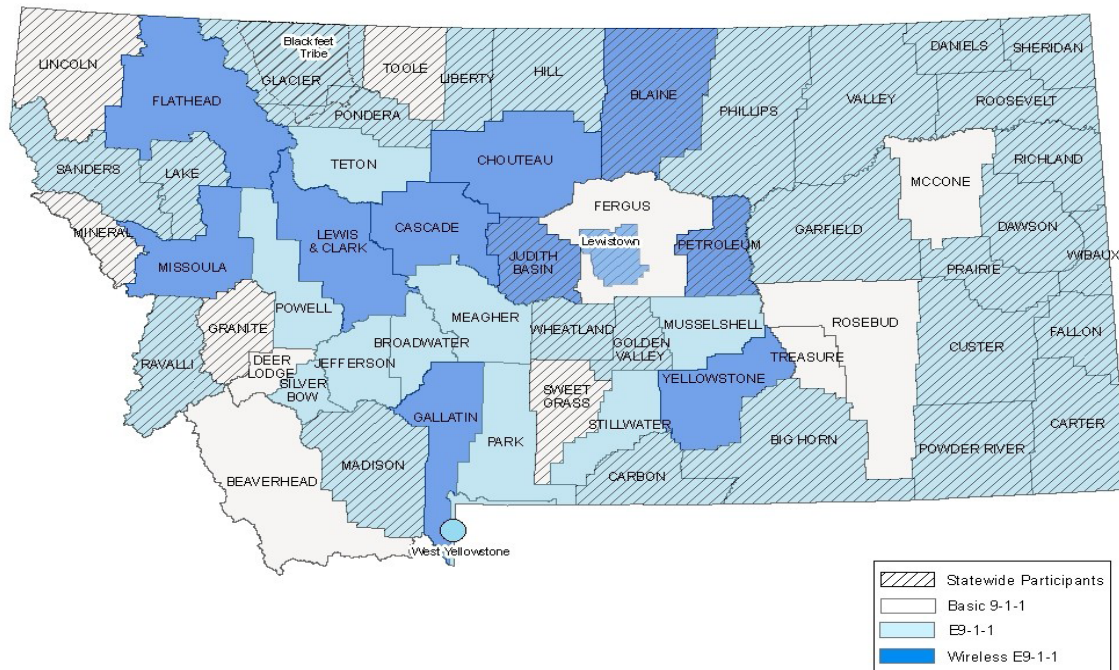
- ♦ Phase I – routes the call to a PSAP in the general geographic location of the caller, provides a callback number, and provides the tower location that received the call. Phase I technology is unable to provide the exact location of the caller.
- ♦ Phase II – routes the call to the appropriate PSAP, provides a callback number, and provides a more exact location of a caller using a Global Positioning System (GPS) chip in the cell phone or a triangulation based on locations of cellular towers.

The 2007 Legislature enacted an additional \$0.50 fee on all telephone access lines to pay for implementation, operation, and improvement of wireless enhanced 9-1-1 services. Ten PSAPs currently provide WE9-1-1 service and the department projects all PSAPs will provide WE9-1-1 services by 2011. Some PSAPs are bypassing Phase I service and going directly to Phase II service.

9-1-1 Service Varies Across the State

9-1-1 service varies depending on the PSAP. Figure 1 provides a geographical representation of 9-1-1 services available in Montana as of August 2007.

Figure 1
Statewide 9-1-1 Network Status Map



Source: Compiled by the Department of Administration as of August 2007.

The Future of 9-1-1 Services

Current 9-1-1 services are based on decades-old technology limited to voice telephone systems. The U.S. Department of Transportation in coordination with 9-1-1 system stakeholders is in the process of developing the architecture and standards for the next generation of 9-1-1 services (NG9-1-1). NG9-1-1 development is a national effort to establish the foundation for public emergency communications services in a wireless mobile society. Table 2 provides a comparison of 9-1-1 services available today and in the future.

Table 2
The Future of 9-1-1 Services

Today's 9-1-1	Future 9-1-1
Primarily voice calls, with some calls using the internet.	Voice, text, or video emergency calling from any communication device via internet-like networks.
Data generally limited to a callback number and caller location.	Able to process advanced data from advanced crash notification and medical alert systems.
Reverse E9-1-1 limited to landline telephones.	Reverse E9-1-1 available for all communication devices.

Source: Compiled by the Legislative Audit Division.

NG9-1-1 will provide significant advancements in public safety. For example, advanced crash notification systems will include sensors in motor vehicles capable of detecting the types of injuries and transmitting medically relevant data to the appropriate emergency medical service and hospital. Reverse wireless 9-1-1 technology will enable emergency personnel to send messages to wireless communication devices about emergency conditions. For example, vehicles approaching a motor vehicle accident involving hazardous materials could be notified of the danger, thereby preventing other vehicles from contributing to the incident or hindering emergency personnel.

NG9-1-1 will be Internet Protocol (IP) technology and will require deploying new equipment and systems capable of handling new communication technologies. At the national level, the federal government and participating 9-1-1 system stakeholders have implemented NG9-1-1 pilot projects. According to federal government documentation, deployment of NG9-1-1 in state and local governments is expected to begin in 2011. According to department management, many Montana PSAPs will be ready to transition to NG9-1-1, but did not know when PSAPs will begin deploying NG9-1-1.

The next chapter provides information about the department's oversight and monitoring of the 9-1-1 Program.

CHAPTER III — The 9-1-1 Program

Introduction

This chapter addresses our audit objectives related to Department of Administration (department) oversight responsibilities for the state's 9-1-1 emergency telephone system. We also present information and recommendations related to program funding and allocation of program funds.

State Law Defines Department Authority and Program Responsibilities

Our first audit objective was to determine whether the department is meeting its statutory responsibilities. Title 10, Chapter 4, MCA, delegates to the Department of Administration responsibility for assisting and monitoring of the state's 9-1-1 telephone system. According to state law, the department will:

- ♦ Upon request of a public safety answering point (PSAP), assist in planning a basic or enhanced 9-1-1 system.
- ♦ Monitor compliance with department-approved basic and enhanced 9-1-1 system plans and use of program funds.
- ♦ Allocate program funds to PSAPs.

The following sections present information and conclusions on audit work addressing this audit objective.

Department Provides Assistance at PSAP Request

The department's first oversight responsibility is to assist PSAPs in planning basic or enhanced 9-1-1 systems. To evaluate this responsibility we interviewed PSAP personnel and reviewed department documentation. Review of the department's website indicated a range of program information was available, from information about allowable program expenditures to inventories of PSAPs' equipment and software. Overwhelmingly, PSAP personnel stated department representatives provided requested assistance to questions and kept them informed of program activities.

Conclusion

The Department of Administration is meeting its statutory mandate to provide assistance at the request of PSAPs.

Program Monitors PSAP Expenditures

The department's second oversight responsibility is to monitor PSAP deployment of 9-1-1 services and PSAP use of program funds. State law allows PSAPs to use program funds for installation, maintenance, and improvement of 9-1-1 systems. Review of files indicates the department monitors expenditure reports for each PSAP biennially. Monitoring activities are designed to verify PSAP expenditures comply with state law and program guidelines, and include desk and onsite reviews of PSAP records and documentation. Program personnel also work closely with PSAP personnel to facilitate compliance with spending guidelines and update PSAP plans for local operations. For example, if a PSAP's annual expenditures do not match expenditures listed in the department-approved plan, the department may update the plan for compliance purposes.

Conclusion

The Department of Administration reviews PSAP expenditure records to verify expenditures comply with statutorily allowable costs, and monitors the deployment status of PSAPs. Additionally, the department works closely with PSAPs to facilitate compliance with department-approved plans.

Newly-Authorized Wireless Enhanced Program Funds will not be Equitably Distributed With Current Allocation Methodology

In an effort to provide more surcharge revenues to smaller counties, the legislature statutorily implemented a revenue distribution mechanism that was employed between 1997 and 2007 and is being utilized again for distributing wireless enhanced 9-1-1 revenues. This revenue distribution mechanism as implemented by the department as of July 1, 2007 results in certain counties not receiving their "fair share" of revenues.

The 2007 Legislature increased the telephone surcharge fee \$0.50 to help fund deployment of wireless enhanced 9-1-1 service. According to state law, \$0.25 of the increase will be distributed to wireless providers for cost recovery, and \$0.25 will be distributed to counties as illustrated below.

Surcharge	→ 84% to all counties on a per capita basis – minimum 1%
Revenues	→ 16% evenly to counties with 1% or less per capita

Our analysis of this funding methodology determined counties with more than 1 percent and less than 2.1 percent of the state's population receive less funding than counties

with 1 percent or less of the state's population. The difference in funding received by the counties ranges from approximately \$2,900 to \$14,500 and results in 15 counties not receiving the 9-1-1 funds in accordance with what we believe was the Legislature's intent. For example, we estimate Dawson County, which has 1 percent of the state's population, would receive approximately \$50,100, while Jefferson County with 1.11 percent of the state's population would receive approximately \$36,700. Appendix A contains a table of estimated revenues counties would receive for 2008 based on 2006 revenue collections.

The cause for this apparent disparity is the department's interpretation about how to best distribute the surcharge revenues within the confines of the statutory language. Additionally, it appears the methodology established by the legislature results in the unequal distribution of funds. The department sought to statutorily change the methodology in the 2007 Legislative Session, but the changes were not adopted by the legislature. Additionally, the same disparity issue exists regarding distribution of surcharge revenues dedicated to reimbursing wireless providers for cost recovery because statute uses the same distribution methodology.

An Alternative Methodology Would Provide an Equal Distribution

To resolve this disparity, the department and legislature must consider other alternatives for distributing program funds. A base-plus methodology is one option. For example, 56 percent of the base (revenues collected) could be allocated evenly among all counties; this ensures each county would receive one percent of the base. The remaining 44 percent of revenues could be allocated among all counties on a per capita basis.

We believe the department should consult with the 9-1-1 Advisory Council and other applicable stakeholders to discuss alternative methodologies for distributing surcharge revenues according to legislative intent. Once a methodology is agreed upon, the department should seek statutory clarification and approval from the Legislature of the alternative approach.

Recommendation # 1

We recommend the Department of Administration:

- A. *Seek input from 9-1-1 system stakeholders, including the 9-1-1 Advisory Council, on how to distribute surcharge revenues without creating disparities.*
 - B. *Seek statutory clarification and approval of a revenue distribution methodology ensuring funds are distributed as envisioned by the legislature.*
-

Improving Collection and Reporting of Management Information

The department collects basic expenditure information necessary for tracking PSAP deployment of 9-1-1 services. However, the department cannot collect or compile other information useful for general management purposes. According to the department, reasons local governments do not provide this information are difficulties tracking the information and state law does not mandate PSAPs or counties compile or report detailed management information. Useful management information for collection includes, but is not limited to:

- ◆ Numbers of emergency 9-1-1 calls.
- ◆ Numbers of non-emergency 9-1-1 calls.
- ◆ Nature of services requested from 9-1-1 calls.
- ◆ Use of program funds.
- ◆ Detailed deployment statuses.

Best management practices recommend agencies collect and compile information necessary for oversight and administration purposes. Additional management information would be useful to management and policy makers when determining budgetary and resource needs.

The department should expand its current collection and compilation of its management information for oversight and reporting purposes. For example, the department's 9-1-1 report to the 2007 Legislature contained some general information related to 9-1-1 deployment status of PSAPs, but provided no detailed information about 9-1-1 activities around the state. Such information is useful for measuring the efficiency and effectiveness of 9-1-1 services provided by PSAPs. In addition, 9-1-1 emergency information may be useful for other emergency programs or systems. For example, 9-1-1 calls resulting in dispatching of fire or emergency medical services may be useful in identifying resource needs both locally and statewide.

As noted, since 1985, fees for 9-1-1 services have increased from \$0.25 to \$1.00 per access line, including a \$0.50 fee increase by the 2007 Legislature. Without comprehensive program management information and reporting to the legislature, the public has less assurance program funds are being used effectively and efficiently. Improved data compilation and reporting improve accountability for use of program funds.

The limited availability of program information appears to be the result of two primary factors. First, the department's main focus for available resources is getting PSAPs

deployed with wireline and wireless enhanced 9-1-1 services, and monitoring expenditures for compliance with statutory and program expenditure guidelines. Second, persons interviewed stated historically it was difficult for PSAPs to collect and compile activity information because 9-1-1 systems had limited capabilities for capturing information. However, new systems track 9-1-1 calls and provide extensive management information useful for oversight and reporting purposes, such as numbers and types of 9-1-1 calls, and dispatch information. Additionally, it is not clear whether the department has the statutory authority to require local governments to provide their 9-1-1 management information.

Recommendation #2

We recommend the Department of Administration seek statutory authority to require local governments provide comprehensive program information and expand its compilation and reporting of management information for statewide 9-1-1 activities.

Distribution of E9-1-1 Funds Changed in July 2007

Another audit objective was to examine how a sunset provision in statute regarding allocating program funds would affect PSAPs. When the legislature first enacted 9-1-1 legislation, it required program funds be allocated to counties on a per capita basis. The 1997 Legislature implemented a different funding methodology when it enacted legislation to fund enhanced 9-1-1 services. Recognizing the least populated counties might not have necessary funding and resources to deploy E9-1-1, the Legislature enacted the previously discussed “84-16 percent” formula. This distribution formula sunset in 2007. According to department management, the consensus among stakeholders and legislators was the 84-16 percent mechanism would help the least populated counties deploy E9-1-1 by 2007. After 2007, they anticipated the least populated counties would not need the additional funding to maintain and operate their 9-1-1 systems, so the funding methodology was changed to allocate program funds on a per capita basis after 2007.

The Change in Distribution Methodology Will Adversely Impact the Least Populated Counties

The sunset of the 84-16 percent formula will impact funds the least populated counties receive. Our analysis indicates loss of funds allocated to the 40 least populated counties will be approximately \$7,000 for each county annually, depending upon revenues collected. Compared to the previous allocation methodology, these counties will receive 19 percent less funding. The sixteen most populated counties will each receive a funding increase

ranging from approximately \$5,000 to \$52,000, which amounts to a 19 percent increase in funding.

While the additional revenues added by the 2007 Legislature may help mitigate impacts of the sunset provision, the least populated counties will still receive comparatively less funding than they would have received. To further compound this circumstance, PSAP costs are not one-time expenditures. For example, the expected life of 9-1-1 equipment is between five and ten years, during which PSAPs must set aside enough money to pay core costs such as repair and replacement of aging or obsolete equipment. PSAPs also incur continuous or recurring costs for updating system databases and paying connection fees to 9-1-1 service providers. As a result of equipment obsolescence and basic equipment needs, all PSAPs, regardless of county population, have similar basic and ongoing expenditure requirements.

Conclusion

While the new surcharge revenues established by the 2007 Legislature may help the least populated counties, those counties incur the same core costs for updating and replacing 9-1-1 systems as counties with large populations. As a result, updating existing systems and deploying new technologies will be more challenging than when the 84-16 percent allocation formula was in place.

The State has Two 9-1-1 Service Providers

Our third objective was to examine whether having multiple 9-1-1 service providers influences services provided in the state. Currently, there are two telecommunication companies providing 9-1-1 services. Qwest Communications International, Inc. (Qwest) has individual contracts with 20 PSAPs and provides 9-1-1 services to the largest PSAPs, as well as several smaller, adjacent PSAPs. Qwest services were generally most affordable to PSAPs serving or near the largest population areas when the 9-1-1 program was initiated, according to Qwest and department representatives.

Because of reputed high “transportation” costs associated with Qwest providing E9-1-1 services in some rural areas, department and county personnel said many PSAPs could not afford to enter into contracts with Qwest for enhanced 9-1-1 services. To address this problem, the department issued a request for proposal for contracted E9-1-1 services. The department subsequently entered into a five-year contract agreement with CenturyTel, Inc., a major telecommunications company, to provide E9-1-1 services and equipment at fixed rates. While any PSAP may use the department’s agreement with CenturyTel to contract for E9-1-1 services, the majority of PSAPs contracting with CenturyTel are in less populated counties with greater distances from major population areas.

Qwest Provides “a la carte” Services

Qwest provides its customers with “a la carte” services. That is, customers may select 9-1-1 services from a menu of options. PSAPs pay a separate fee or cost associated with each option. For example, if a PSAP wants emergency reverse notification in addition to basic 9-1-1 service, the PSAP must pay a separate fee. Qwest contracts with PSAPs generally run from five to seven years.

Qwest PSAPs Satisfied with Services Received

Interviews with PSAP managers receiving Qwest services indicate they are satisfied with services provided. All PSAP managers interviewed who presently have Qwest believe the cost for services from Qwest would be less than the cost for services from CenturyTel.

CenturyTel Contract Provides a Package of Services

When the state contracted with CenturyTel for 9-1-1 services, it contracted for a single-service package including:

- ♦ Increased system redundancy.
- ♦ Emergency reverse notification.
- ♦ Wireless E9-1-1.
- ♦ Internet Protocol (IP) capability.
- ♦ Equipment standardization.

CenturyTel PSAPs Also Satisfied with Services Received

Interviews with PSAP managers using CenturyTel contracted services indicate they also are satisfied with services received. PSAP managers stated CenturyTel services were affordable, while Qwest services are thought to be less affordable.

Department Wants a Standardized System with One Provider

The department’s request for proposal for a 9-1-1 service provider and final contract with CenturyTel included specific service requirements to implement system standards the department considers important, including system redundancy. Contract standards are designed to prevent disruption of 9-1-1 services and are comparable to department standards for computer systems. Ideally, the department would prefer all PSAPs be connected to the CenturyTel system because of the safeguards associated with standardization, uniformity, and redundancy. However, the department recognizes the right of individual PSAPs to choose their service provider. The department will continue to urge uniformity within the system.

We Did Not Comprehensively Conclude on Value of Single Versus Multiple Providers

We did not fully conclude on whether single or multiple providers are in the best interests of the system and PSAPs. That analysis would have required additional technical expertise, and was beyond the limited focus of our review. However, we did conclude the department has limited ability to address issues and disagreements that may arise between the two 9-1-1 service providers that can ultimately affect statewide provision of 9-1-1 services. At present, the department is primarily limited to a negotiating role that may or may not result in successful outcomes for the overall program. The next chapter provides recommendations to the legislature for more clearly establishing their intent and expectations for the 9-1-1 Program.

CHAPTER IV — Enhancing 9-1-1 Services in Montana

Introduction

Early 9-1-1 systems were designed around telephone technology provided through telephone companies and local cooperatives. To implement these early 9-1-1 systems, the legislature:

- ♦ Created a funding source by assessing a surcharge on all telephone access lines.
- ♦ Created methodologies for allocating surcharge revenues to local governments.
- ♦ Established a program to assist public safety answering points (PSAPs) in developing local 9-1-1 systems and to monitor program expenditures.

Changing technologies have significantly increased system capabilities and expectations over the last 20 years. Already the federal government and 9-1-1 system stakeholders are developing standards and testing for the next generation of 9-1-1 (NG9-1-1) with initial deployment expected in 2011. However, Montana statutes governing the program have remained relatively unchanged. Because of significant system changes, we believe the Legislature should consider modifying two areas of state law:

- ♦ Legislative intent and clarification of 9-1-1 system expectations.
- ♦ Department authority to oversee and manage 9-1-1 services.

Montana Faces an Evolving 9-1-1 System

From the beginning, the department helped facilitate the evolution of a statewide emergency telephone system. Technological advancements have evolved from a basic system to enhanced systems capable of providing callback numbers and locations of wireline and wireless callers. Furthermore, the public has come to expect readily available services based on existing technologies, such as being able to contact 9-1-1 using a wireless telephone. As Montana continues to implement existing technologies, NG9-1-1 is already in development stages. NG9-1-1 will enhance public safety nationwide by incorporating wireless digital technologies with “smart” transportation systems.

While the legislature has made statutory modifications to the funding structure of the 9-1-1 system, there has been minimal legislative change to formal expectations of what is a rapidly changing and evolving 9-1-1 system. As stated, there are now 57 PSAPs all operating independently, with different priorities, timelines, and capabilities for addressing existing or future technological capabilities. While Montana PSAPs continue to deploy wireline and wireless enhanced 9-1-1 services, new technological changes and advancements will present even more challenges to deploying the next generation of 9-1-1 services.

Clarifying Legislative Intent and Expectations for Montana's Emergency Telephone System

The following sections provide examples of why the legislature should consider modifying existing 9-1-1-related statutes to address evolving technologies and systems.

State Law Does Not Require Deployment of Available Technologies

One of our objectives was to evaluate whether 9-1-1 surcharge funds were spent on equipment and services most likely to assure full deployment of enhanced 9-1-1 (E9-1-1) services. Initially, the department expected E9-1-1 would be available in 2005, and state law suggests the legislature expected E9-1-1 to be deployed by 2007. However, 17 PSAPs still provide only basic 9-1-1 service. The department anticipates wireless enhanced 9-1-1 (WE9-1-1) service is ready to be deployed throughout the state by 2011.

In Chapter III we concluded the department has procedures in place to assure PSAPs use program funds for statutorily-allowable costs. However, we noted neither statute nor program rules set priorities for use of program funds to efficiently and effectively deploy 9-1-1 services and technologies. Statute allows PSAPs to use program funds to implement, maintain, and improve 9-1-1 systems, but does not require PSAPs to deploy existing available technologies. For example, statute suggests the legislature expected all PSAPs to deploy enhanced 9-1-1 service by 2007. However, as of August 2007, seventeen PSAPs (30 percent) were still providing only basic 9-1-1 service despite receiving funding for 10 years to deploy enhanced 9-1-1 services. While many PSAPs appeared to place a priority on using program funds specifically for deploying new 9-1-1 services, department records indicated some PSAPs appear to use program funds for costs not directly related to deploying 9-1-1 services. Additionally, once the department approves an enhanced 9-1-1 service plan, a local government operating a PSAP is eligible to expend program funds regardless of progress to comply with deployment objectives. Examples of expenditures not directly related to deploying 9-1-1 services included:

- ♦ Salaries for dispatchers.
- ♦ Office equipment and supplies.
- ♦ Travel costs.
- ♦ Fixed costs such as rent and insurance.

While expenditures noted in the bullets may be reasonable after a PSAP has deployed available or current technologies, best practices suggest expenditures should be limited to deployment costs until plan objectives are met.

Additionally, we noted program personnel, upon a recommendation from the 9-1-1 Advisory Council, approved PSAP expenditures for connecting to Department of Justice's criminal and non-criminal computer systems. While Department of Justice computer connections are critical to dispatcher activities, they are generally outside the scope of direct 9-1-1 services. For example, dispatchers use Department of Justice systems to check motor vehicle registrations, driver's license information, and criminal justice system information. However, these uses are only indirectly related to providing 9-1-1 services. Section 10-4-101, MCA, defines direct dispatch in relation to a 9-1-1 call as a decision as to the proper action to be taken and for dispatch of appropriate emergency service units.

Other States Specify How PSAPs May Expend Funds

Best management practices and information from other states indicate setting priorities for program expenditures promotes 9-1-1 service deployment. For example, one state requires PSAPs to complete specific stages of deployment before funds may be used for costs not directly associated with deploying services. Other states implemented "reimbursement" programs where PSAPs must provide documentation of eligible costs to receive reimbursements for deployment expenditures including clear guidelines for reimbursable expenditures. We also noted one state specifically limited program expenditures to costs directly related to deploying E9-1-1 services and for recurring expenditures such as telephone costs. Another state capped expenditures for allowable costs. Such practices provide increased assurance purchasing equipment and services necessary for deploying 9-1-1 service remain the priority, administrative costs are secondary, and designated funds are used only after enhanced 9-1-1 services are actually deployed.

While statute does not prohibit current PSAP expenditures, we question whether program funds should be used for salaries, office equipment and supplies, and other administrative costs before deployment of equipment necessary to upgrade existing or future 9-1-1 services. We believe the legislature should establish clear priorities for expenditures of program funds based on expected outcomes, such as implemented in other states. With deployment of NG9-1-1 services expected to begin in 2011, the state may face delays in deploying these new technologies and services if priorities on current and future program expenditures are not established.

Some PSAPs Are Accumulating Significant Surcharge Funds

We also noted some PSAPs are accumulating large fund reserves. Total surcharge funds in reserve at 2006 fiscal year end were approximately \$13 million. One PSAP had approximately \$2 million in reserve and four PSAPs had more than \$400,000 each. In at least one instance, PSAP management intends to use surplus funds to construct a new emergency communications facility. Department management stated PSAPs are encouraged to save funds for future 9-1-1 expenditures. Legislative intent also encourages

PSAPs to save funds to pay for future or unexpected costs, stating “sound business practices suggest 9-1-1 funds be invested until a city or county has sufficient revenue to purchase equipment and other necessary items.” However, legislative intent also appears to suggest the allowable uses for accumulated funds are “equipment and other necessary items.” Accumulating funds for capital projects such as new buildings is less clear in terms of legislative intent, particularly since buildings are likely to be used for many uses in addition to 9-1-1 services.

Clarifying Legislative Expectations of 9-1-1 Service in Montana May Assist the Department and the Counties

During the audit, we noted current statutes do not appear to clearly state expectations of 9-1-1 services to be provided by PSAPs. Additionally, some statutes appear to be outdated. For example:

- ♦ Statute does not clearly indicate whether the legislature’s intent is for all PSAPs to provide the same levels of service. For example, should all PSAPs be required to provide wireless enhanced 9-1-1 service, or is it acceptable for some PSAPs to provide only basic 9-1-1 service and use surcharge revenues for general dispatch-related costs.
- ♦ Similarly, it is unclear whether the legislature intended for all PSAPs to pursue the most current 9-1-1 service, such as NG9-1-1, as those services become available.
- ♦ One-quarter of the revenues collected for 9-1-1 services in Montana are dedicated to basic 9-1-1 service, which is becoming obsolete. Based on department projections, most PSAPs in the state have transitioned to enhanced 9-1-1 services or will in the next year. While statutory language should likely be updated, department officials cautioned the revenues resulting from the associated surcharge continue to place a critical role in supporting PSAP operations.

State law is based on past and current technologies. However, technologies have continued to change and expand beyond what was considered or known when current laws were enacted by past legislatures. Additionally, because there was only one technology standard at the time, the legislature did not set priorities for use of program funds. We believe the legislature needs to clarify its expectations for the 9-1-1 system and surcharge revenues as well as set priorities for current and future 9-1-1 services.

Recommendation #3

We recommend the Legislature:

- A. *Establish intent and priorities for use of program funds by PSAPs; THEN*
- B. *Clarify its expectations of 9-1-1 services to be provided in Montana, including the minimal levels of service as new technologies become available.*

Statutes Limit the Department's Authority to Oversee and Direct 9-1-1 Services

Montana's 9-1-1 system is a conglomeration of services. Each PSAP operates independently with sole authority and responsibility for activities within its jurisdiction. While the 9-1-1 Program has some advisory responsibilities and limited authority for reviewing expenditures to verify compliance with state law, no strong central authority for coordinating 9-1-1 services and ensuring timely deployments of services exists. During the audit, we identified areas for improvement or enhancement. However, the department does not have statutory authority to direct activities to improve overall system efficiencies and consistency. A contractor for the state also reported inconsistencies in systems used to create address databases, which impacts PSAP deployments. We believe the legislature should reconsider the department's authority regarding oversight and direction of 9-1-1 services in Montana.

System Efficiency Could Likely Be Improved

One of the reasons we believe the department needs oversight authority is there appears to be more PSAPs than necessary to create a statewide 9-1-1 system. A second reason is no statutory authority exists to prohibit even more PSAPs from being created. To help determine efficiency of the existing system, we looked at a fundamental benchmark for PSAPs: call volume. Our assessment is based on review of other states' information, Montana PSAP data, and interviews with PSAP managers and other stakeholders.

Our assessment found call volume for some PSAPs was an average of several hundred calls annually, which translates into one to three 9-1-1 calls per day. Additionally, one PSAP averages less than 25 calls per year. In contrast, a study about Vermont dispatch services suggests the benchmark for one agency is 4,250 calls per staff per year. While this study focused more on dispatch services than 9-1-1 calls and does not have a direct application to Montana, it illustrates the potential volume of calls a single 9-1-1 call-taker/dispatcher could handle. When consideration is also given to the fact core costs for deploying and

operating a small call volume PSAP are similar to PSAPs receiving thousands of calls annually (there are at least 7 in Montana), numerous questions arise concerning overall system efficiency.

The Department Should Have the Authority to Evaluate PSAP System Measures

Our review of the numbers of reported 9-1-1 calls indicate some PSAPs may not have sufficient call volume to justify the expenditures for equipment, software, and the ongoing costs associated with other PSAPs. Since surcharge revenues appear to be intended to create a statewide, uniform system, the importance of the department being able to evaluate PSAPs by more than just their expenditures and plan compliance is essential. System measures like call volume are factors the department should be able to consider when determining whether to approve a new PSAP or when looking at proposals from existing PSAPs. Other system measures for new technology deployment should include:

- ♦ Staffing levels relative to call volumes.
- ♦ Population density and location.
- ♦ Telephone subscribers in PSAP jurisdiction.
- ♦ County geographic characteristics.

In addition to examining select system measures, we also looked at how various PSAPs are presently operating. We found several local government entities chose to maximize resources by consolidating surcharge revenues to create a single PSAP serving multiple locations. The next sections discuss the concept (as a possible efficiency measure) in more detail.

Consolidation Appears to be a Viable Option

Consolidation is an option for improving the efficiency of the system and controlling costs while at the same time potentially enhancing the levels of service provided. Audit work indicated pooling 9-1-1 resources via consolidating PSAPs can reduce costs. For example, at least seven counties pool their program allocations with another PSAP/county to receive 9-1-1 services, with minimal or no additional outlay of local funds. Additionally, we analyzed the call volume for four adjacent counties in north-central Montana that are not consolidated. Each of these counties needs approximately 5 FTE to operate a PSAP 24 hours a day, 365 days a year, for a total of 20 FTE. By consolidating PSAP services, these four counties could jointly operate a PSAP with approximately five to seven FTE. In addition to FTE savings, consolidating equipment and software into one PSAP would further reduce 9-1-1 system costs for all four counties. The core costs for installing 9-1-1 equipment in a PSAP is at least \$250,000, or at least \$1 million for four PSAPs.

Alternatively, if four PSAPs consolidate, their outlay for system equipment would be approximately \$250,000, or a cost avoidance of at least \$750,000.

Although some PSAP representatives and county officials we interviewed looked favorably upon consolidation, interviews also indicate obstacles to consolidation including:

- ♦ Cooperation. There is subsequent need for ongoing, substantive cooperation among counties. Some PSAP representatives appeared reluctant to coordinate efforts for this sort of public safety function with other counties. Generally, some PSAP representatives expressed concern about loss of local control.
- ♦ Geography. Radio interoperability and loss of dispatcher knowledge of areas was a concern with some PSAPs.
- ♦ Jobs. Some PSAP managers were concerned about losing local dispatcher jobs.

Obstacles to Consolidation Can Be Mitigated

While obstacles to consolidation exist, we believe those obstacles can be effectively mitigated or addressed. Currently, several jurisdictions have consolidated PSAP operations, including one PSAP in eastern Montana serving four counties and a PSAP in central Montana serving two counties and a city. Interviews indicate these PSAPs successfully resolved issues ranging from communications difficulties to coordination among counties. Obstacle resolution efforts included:

- ♦ Improving radio communications and installing additional towers or signal repeaters.
- ♦ Establishing a committee of county representatives with responsibility for setting PSAP expenditure priorities.
- ♦ Using geographic information systems and training to improve dispatchers' familiarity with 9-1-1 service areas.

We also believe any potential consolidation discussion can be best “marketed” using a strategic approach. As noted, 9-1-1 equipment and software has an operational lifespan of five to ten years. With direction from the legislature to the department, consolidation with other PSAPs could be an alternative counties would have to consider before using surcharge funds for upgrading or installing new 9-1-1 systems. Additionally, the department could establish standards or guidelines for funding purchases of new systems based on efficiency decisions regarding PSAPs with low volumes of 9-1-1 calls and/or locations appearing to be candidates for consolidation with another PSAP.

Ensuring Public Expectations are Met in an Evolving 9-1-1 System

The 1997 Legislature created a means for funding wireline enhanced 9-1-1 services. Department management stated they initially anticipated most PSAPs would be E9-1-1 capable by 2005, and statutes suggest the legislature expected deployment to be completed by 2007. However, 17 PSAPs are still providing only basic service. We also determined actual E9-1-1 service may vary among PSAPs. The department's agreement with CenturyTel to provide contracted 9-1-1 service includes specific standards or specifications for service, including system redundancy, IP capability, reverse notification, and PSAP backup capabilities. This contract assures consistency in services among participating PSAPs. While Qwest may provide some of the same services, PSAPs contracting with Qwest are not required to provide the same system capabilities as provided under the CenturyTel contract. For example, reverse notification is an optional service for PSAPs using Qwest and there is no mandated requirement PSAPs provide reverse notification service.

Developing Standards for Future 9-1-1 Systems

While Montana is still progressing towards full deployment of E9-1-1 and WE9-1-1, deployment of NG9-1-1 is expected to begin in 2011. While local government agencies will continue to operate PSAPs, fundamental objectives of NG9-1-1 include increased coordination among PSAPs and emergency service providers, and developing standards, coordination, and interoperability. According to a U.S. Department of Transportation report on NG9-1-1 transition, existing 9-1-1 networks have proven to be highly reliable, and implementers of NG9-1-1 should strive to ensure NG9-1-1 meets or exceeds industry standards to assure the same system reliability.

Public Safety and Emergency Services is a Statewide Issue

Public safety and emergency services is a statewide issue, and we believe the public generally expects 9-1-1 services to be similar regardless of residence or location. Additionally, when 9-1-1 surcharge fees are increased, we believe the public generally expects new 9-1-1 technologies to be deployed and available in a timely manner. Review of other states' programs suggested a strong central authority with a mandate to oversee and control PSAP expenditures can help ensure consistency in 9-1-1 services and ensure funds are used to effectively and efficiently implement 9-1-1 services. According to a 2004 National Governors Association Center for Best Practices report on E9-1-1 deployment, one strategy for accelerating implementation was to designate a statewide coordinator who has authority and oversight of resources to effectively implement E9-1-1. While this report acknowledges Montana's coordination activities, it also included information on states with E9-1-1 programs with more authority. For example, some states have granted E9-1-1 programs authority to establish policies and procedures, technical and operational standards, as well as authority to establish statewide 9-1-1 standards.

Balancing Local Government Control with State Oversight

Implementing a stronger central authority with a mandate to oversee and control PSAP expenditures will need to be balanced with local government control concerns. Interviews with local government officials indicate a strong sense of responsibility for PSAP operations because local officials are tasked with providing public safety and services to constituents, although some county commissioners wanted to explore consolidation to reduce local government expenditures. However, as new 9-1-1 technologies emerge and mobile communications capabilities expand, 9-1-1 systems will likely need to evolve beyond independent local systems to be part of a comprehensive interconnected statewide system. Establishing regional or multi-county coordinating or advisory councils to provide input could mitigate concerns about perceived loss of local control.

Department Needs Additional Authority to Help Assure Uniformity and Timely Deployment of a Standardized 9-1-1 System

While the balance between state and local control will remain a concern for local governments, we believe the evolution of the state's 9-1-1 system into a comprehensive statewide emergency telephone system will require additional oversight and more direction by the department than currently allowed by statute. Additionally, the 9-1-1 system is the basic foundation for receiving and responding to local, regional, and statewide emergencies. To assure a uniform emergency notification capability across the state, the legislature should grant the Department of Administration the authority necessary to:

- ♦ Establish standards for efficiency of system operations and require consideration of consolidation before approving PSAPs expenditures for new 9-1-1 systems.
- ♦ Develop operational standards for a state 9-1-1 system, including PSAP operations.

Recommendation #4

We recommend the Legislature grant the Department of Administration:

- A. *Authority to evaluate PSAP operations and consider consolidation of PSAPs to improve the efficiency and cost-effectiveness of the 9-1-1 system.*
 - B. *Authority to develop operational standards for a state 9-1-1 system, including PSAP operations.*
-

Some Program Funds Are Not Able to be Used for 9-1-1 System Development Costs

Section 10-4-301, MCA, requires 3.74 percent of surcharge revenues be deposited in the state's General Fund to pay for program administration costs. However, the department has kept program costs to about 2.3 percent of total program revenues. The remainder of the designated administrative funds coming from surcharge revenues stay in the General Fund. At present, program funds deposited in the General Fund but not used for administering the 9-1-1 Program are used to pay for other state government costs and cannot be transferred into special revenue accounts for distribution to county governments for local 9-1-1 systems. The 2007 Legislature considered HB 33, which would have resolved this issue; however, the bill was tabled by the House Appropriations Committee after passing second reading on the House floor.

Audit work also indicates the contribution of surcharge revenues transferring to the General Fund will increase as a result of 2007 legislation. With the \$0.50 increase in 9-1-1 surcharges for wireless telephones, the amount of money transferred to the General Fund will double. While the department received authority for one additional FTE for program operations, those personnel costs will still be less than the designated percentage for administrative costs. We estimate during fiscal years 2008 through 2011 more than \$1.5 million dollars of 9-1-1 surcharge revenues deposited into the General Fund will not be used for 9-1-1 services even though there appears to be specific system needs the dollars could be used for.

Sections 10-4-303 and 312, MCA, state surcharge revenues must be used for installing, operating, and improving 9-1-1 services. Surcharge revenues have increased to provide additional funding for PSAPs and implementation of new 9-1-1 technology. At the same time, statutory language results in some 9-1-1 surcharge revenues being used for other purposes, which reduces funds available for local PSAPs. Additionally, department management stated future federal funding for 9-1-1 services may be at risk if revenues collected for 9-1-1 purposes are diverted to other uses.

Current state law does not provide a mechanism for transferring 9-1-1 revenues deposited in the General Fund, but not used for program administration, back to the Special Revenue Account for distribution to the PSAPs. The legislature can maximize funding available for 9-1-1 system costs by employing one of the following alternatives:

- ♦ Create a special revenue account for department administrative costs, with any unused administrative funds reverting to the appropriate 9-1-1 special revenue accounts for subsequent distribution to PSAPs.

- ♦ Reduce the percentage of 9-1-1 revenues deposited into the General Fund to reflect actual administrative expenditures.
- ♦ Give the department authority to expend unused administrative funds for other system development or deployment costs as the department and/or the 9-1-1 Advisory Council deem appropriate.

Ultimately, resolving the issue of 9-1-1 revenues being used for other purposes will better ensure more efficient and timely deployment of a uniform statewide system.

Recommendation #5

We recommend the Legislature revise state law to ensure all 9-1-1 surcharge revenues are only used for 9-1-1 system development and operations.

Appendix A

Estimated Distribution of FY2008 Wireless Enhanced 9-1-1 Surcharge Revenues

The 2007 Legislature increased the surcharge fee on telephone access lines by \$0.50 to help fund deployment of wireless enhanced 9-1-1 service, with \$0.25 being dedicated to counties and \$0.25 dedicated to wireless providers for cost recovery. As presented in Chapter III, the statutory methodology creates a disparity in funds counties receive. The following table presents estimated wireless enhanced 9-1-1 surcharge revenues to be distributed to counties in 2008 based on 2006 reported revenue collections. Our estimated distributions vary from department estimates because the department attempted to address this issue by considering counties with populations between 1 percent and 1.5 percent as counties receiving 1 percent or less of the population. Consequently, department management methodology results in only six counties receiving less funding in FY2008. Statute does not specifically authorize the department's practice, and our interpretation of state law would result in fifteen counties, which are shaded in the table below, receiving less than their "fair share" during FY2008.

County	Population	Percent of State Population	Total Distributions
Yellowstone	129,352	14.34%	\$179,872.22
Missoula	95,802	10.62%	139,608.77
Cascade	80,357	8.91%	121,068.96
Flathead	74,471	8.25%	113,997.41
Gallatin	67,831	7.52%	106,027.02
Lewis and Clark	55,716	6.18%	91,494.06
Ravalli	36,070	4.00%	67,907.78
Silver Bow	34,606	3.84%	66,153.43
Lake	26,507	2.94%	56,428.69
Lincoln	18,837	2.09%	47,223.76
Hill	16,673	1.85%	44,624.72
Park	15,694	1.74%	43,455.15
Glacier	13,247	1.47%	40,509.57
Big Horn	12,671	1.40%	39,816.49
Fergus	11,893	1.32%	38,885.17
Custer	11,696	1.30%	38,646.93
Roosevelt	10,620	1.18%	37,358.24
Sanders	10,227	1.13%	36,892.57
Jefferson	10,049	1.11%	36,675.99
Richland	9,667	1.07%	36,210.33
Carbon	9,552	1.06%	36,080.37

(Table continued on A-2)

(Table continued from A-1)

County	Population	Percent of State Population	Total Distributions
Deer Lodge	9,417	1.04%	35,917.94
Rosebud	9,383	1.04%	35,874.62
Beaverhead	9,202	1.02%	35,658.03
Dawson	9,059	1.00%	50,134.83
Stillwater	8,195	0.91%	49,095.21
Valley	7,675	0.85%	48,477.94
Powell	7,180	0.80%	47,882.33
Blaine	7,009	0.78%	47,676.57
Madison	6,851	0.76%	47,481.64
Teton	6,445	0.71%	46,994.32
Pondera	6,424	0.71%	46,972.67
Chouteau	5,970	0.66%	46,431.20
Toole	5,267	0.58%	45,586.51
Phillips	4,601	0.51%	44,785.14
Musselshell	4,497	0.50%	44,655.19
Broadwater	4,385	0.49%	44,525.24
Sheridan	4,105	0.46%	44,189.53
Mineral	3,884	0.43%	43,929.62
Sweet Grass	3,609	0.40%	43,593.91
Fallon	2,837	0.31%	42,662.59
Granite	2,830	0.31%	42,662.59
Judith Basin	2,329	0.26%	42,056.15
Wheatland	2,259	0.25%	41,969.51
Liberty	2,158	0.24%	41,850.39
Daniels	2,017	0.22%	41,687.95
McCone	1,977	0.22%	41,633.81
Meagher	1,932	0.21%	41,579.66
Powder River	1,858	0.21%	41,493.02
Carter	1,360	0.15%	40,897.41
Garfield	1,279	0.14%	40,799.95
Prairie	1,199	0.13%	40,702.48
Wibaux	1,068	0.12%	40,540.04
Golden Valley	1,042	0.12%	40,507.56
Treasure	861	0.10%	40,290.97
Petroleum	493	0.06%	39,857.80
Total			\$2,929,991.94

The above table only provides an estimate of potential distribution of funds based on wireless enhanced 9-1-1 surcharge revenues. Counties also receive distributions of surcharge revenues collected for basic and enhanced wireline services.

DEPARTMENT OF
ADMINISTRATION

DEPARTMENT RESPONSE

DEPARTMENT OF ADMINISTRATION
DIRECTOR'S OFFICE

B-3



BRIAN SCHWEITZER, GOVERNOR

JANET R. KELLY, DIRECTOR

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November 15, 2007

RECEIVED

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LEGISLATIVE AUDIT DIV.

Mr. Scott Seacat, Legislative Auditor
Legislative Audit Division
PO Box 201705
Helena, MT 59620-1705

RE: Performance Audit #07P-12: Montana's 9-1-1 Emergency Telephone System

Dear Mr. Seacat:

The Department of Administration has reviewed the Performance Audit of Montana's 9-1-1 Program and the recommendations contained therein. The Department has not responded to recommendations three through five since they are directed to the Legislature.

Our response to audit recommendations one and two appear below.

Recommendation #1

We recommend the Department of Administration:

- A. Seek input from 9-1-1 system stakeholders, including the 9-1-1 Advisory Council, on how to distribute surcharge revenues without creating disparities.
- B. Seek statutory clarification and approval of a revenue distribution methodology ensuring funds are distributed as envisioned by the legislature.

Response

We concur with recommendations A and B. The Department will work with the 9-1-1 system stakeholders, including the 9-1-1 Advisory Council, to draft legislation to clarify the distribution of surcharge revenues and conform with legislative intent. The Department will submit the proposed legislation as part of the Executive Planning Process.

Recommendation #2

We recommend the Department of Administration seek statutory authority to require local governments provide comprehensive program information and expand its compilation and reporting of management information for statewide 9-1-1 activities.

Response

We concur. The Department will work with the 9-1-1 Advisory Council to draft legislation creating statutory authority for the 9-1-1 Program to compile and report management information. The Department will submit the proposed legislation as part of the Executive Planning Process.

My staff and I appreciated the courtesy and professionalism of the legislative audit staff in conducting this audit.

The Department's Corrective Action Plan (CAP) is enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "Janet R. Kelly".

Janet R. Kelly, Director

Enclosure

Corrective Action Plan (CAP): Audit Report # 07P-12
Montana's 9-1-1 Emergency Telephone System
Department of Administration
November 15, 2007

Agency	Recommendation #	Does this affect a federal program?	CFDA # (if previous YES)	Management View	CAP—Corrective Action Plan	Person responsible for CAP	Target Date
61010	Recommendation #1 We recommend the Department of Administration: A. Seek input from 9-1-1 system stakeholders, including the 9-1-1 Advisory Council, on how to distribute surcharge revenues without creating disparities. B. Seek statutory clarification and approval of a revenue distribution methodology ensuring funds are distributed as envisioned by the legislature.	No		Concur	1) The Department will work with the 9-1-1 system stakeholders, including the 9-1-1 Advisory Council, to draft legislation to clarify the distribution of surcharge revenues and conform with legislative intent. 2) The Department will submit the proposed legislation as part of the Executive Planning Process.	Becky Berger	November
61010	Recommendation #2 We recommend the Department of Administration seek statutory authority to require local governments provide comprehensive program information and expand its compilation and reporting of management information for statewide 9-1-1 activities.	No		Concur	The Department will work with the 9-1-1 Advisory Council to draft legislation creating statutory authority for the 9-1-1 Program to compile and report management information. 2) The Department will submit the proposed legislation as part of the Executive Planning Process.	Becky Berger	November 2008

Agency	Recommendation #	Does this affect a federal program?	CFDA # (if previous YES)	Management View	CAP—Corrective Action Plan	Person responsible for CAP	Target Date
61010	Recommendation #3 We recommend the Legislature: A. Establish specific intent and priorities for use of program funds by PSAPs; THEN B. Clarify its expectations of 9-1-1 services to be provided in Montana, including the minimal levels of service as new technologies become available.	No		N/A			
61010	Recommendation #4 We recommend the Legislature grant the Department of Administration: A. Authority to evaluate PSAP operations and consider consolidation of PSAPs to improve the efficiency and cost-effectiveness of the 9-1-1 system. B. Authority to develop operational standards for a state 9-1-1 system, including PSAP operations.	No		N/A			
61010	Recommendation #5 We recommend the legislature revise state law to ensure all 9-1-1 surcharge revenues are only used for 9-1-1 systems development and operations.	No		N/A			